SOUTH DAKOTA HORTICULTURIST

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TABLE OF CONTENTS

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SOUTH DAKOTA HORTICULTURIST

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FRUIT AND GARDENING EXPERIENCES IN MANITOBA

Mrs. Wm. Dumbrill, Manitoba, Canada

Twenty below zero, and the seed catalogs coming all the time. It seems far enough away until planting time and yet what a pleasure it is to me to be going through the various price lists. We are almost living in our gardens again and what a number of novelties we intend to buy.

Now Is the Time to Plan for Summer

Now is the time to get pencil and paper and make plans for the summers work. None too soon, for we need to get our orders in early for anything we need in vegetables, fruits and flowers. It takes some time by mail to get these so to avoid vexations, order early. I can indorse all Mr. Swanson says about fruits in the home garden. It may be of interest to you lady readers to read of our experiences in raising fruits. I understand that our climatic conditions are the same as yours.

When we came to this place in 1910 there was not a tree in sight and being out on the prairie we got all the winds from every quarter. Having pioneered in the Rainy River district where we had lots of fine trees we missed the shelter and so decided we could not make a home without trees and flowers. So we had a nice strip of land along the north, east and west broken and well cultivated to plant 1,000 trees we had requested from our Forestry Station at Indian Head. These trees arrived in the spring of 1912. There was a mixture of maple, green ash, Russian poplar and willow cuttings, and nearly every tree and cutting crew. I also raised quite a number of Caragana and Tartarian honeysuckles from seed. These were all well cultivated until they got too big for the horse cultivator. We then planted a row of spruce inside of this belt which was four rows deep. How these wee spruce did grow. They were only about six inches when they came from the forestry station. Those same trees are now twenty feet high and a great joy to us.

In the meantime I was a member of various horticultural societies and received fruit trees as premiums. I chose several apple trees as my premiums as I had plenty of raspberries, three varieties of currants, gooseberries and sandcherries. Some of those first apple trees took ten years to bear, but the past five years we have planted more apple trees and an odd one has given us apples the third year from planting the whips. The trees would blossom but did not set fruit. I had the same trouble with the black currants and I got so disgusted with them that I was going to have them dug up but fortunately did not, for along came a swarm of bees. I got so interested in them I wanted to know more about them so the following winter I went to our Manitoba Agricultural College and took a short course in beekeeping and altho I did not learn all there was to know about bees it was a great help to me. At this time I was a nervous wreck of a woman and I surely say, "Thank God for the bees," as they taught me a lesson in self-control.

The following year I was delighted to see those bees working in the fruit blooms and it was followed by a fine crop of apples and also black currants.

Apples From an Old-Fashioned Garden

Now these were just apples, for at that time the secretary of the horticultural department failed to furnish the names of the trees. Eventually we got two of them named: Moscow Pear and Hibernal. Possibly to an expert these apples would seem poor fruit but I can assure you they were a welcome addition to our list of fruits. They made the finest of jelly and I used every one for that purpose. We have always plenty and what a pleasure it is to send glasses of this lovely jelly from an old-fashioned garden to some one less fortunate than ourselves. And too, the sight of those trees in bloom followed by loaded branches of apples, especially the crabs, is well worthwhile.

We have also added some of the plum and cherry hybrids and they are doing very well with us. We are carefully naming the trees as planted and keep a full record of each one since they have a name.

Strawberries have been a success with us, raising the Mastadon and Champion. The Mastadon is a much larger berry than the Champion but it is a softer and not as well flavored berry as the latter. They have both been prolific and I manage to sell $25 worth and have all the strawberries for home use that is needed. Then we have a fine two-rowed bed of asparagus all across the garden. It is very handy, especially when I get so interested in the turkey poults or the wee greenhouse and forget to come in in time to get a large dinner. I have dinner ready in a short time when the asparagus is just a few yards away. Then too, it brings in quite a few dollars at a time when eggs are down in price. I usually sell at least $50 worth besides having plenty for home use and canning. Doctors are my best customers, so you see our shelter belt has been well worth the time spent on it.

There Is No Time for Loneliness

We have increased the number of hives of bees so there is another nice little sideline. So between our fine flocks of Barred Rocks and Bronze turkeys, flowers, fruits and bees we have no time to be lonely.

I would like to tell you more about my flowers, especially the hardy perennials and about the named varieties of Delphiniums of which I am particularly fond.

We grow quantities of sweet peas and I have 600 Glads; all of these products have won many prizes for me and still I can have turkeys ranging through the flower beds. Naturally, they are cultivated in their tastes as they usually choose my choicest seed beds to dust in. However, these things all go to make life worthwhile and I can truthfully say I am a very happy farm wife. I can share my flowers, etc., with a good many unhappy shut-ins as well as friends living in city blocks. If anything I have written interests you and any other interesting matters about Manitoba, please let me know and I'll do my best to give you my experiences.

I just want to say in closing that we had your popular Judge Geo. W. Hackett and Mr. Ray Andrews with us at our recent "All Turkey Show" which was held in Winnipeg. We surely enjoyed having them with us, but were sorry that we could not entertain them as we would have liked to. Anyway we are looking forward to having them with us again at some future date, and then we will be able to show them a good time.—National Farm and Poultry Journal.

Mr. C. Bolles of McCook, Nebraska, tells us that he tried to grow the latham raspberry, using the same methods as Mr. John Robertson. He was expecting to open the natives' eyes but instead his eyes were opened. The weather was so hot and dry that the berries dried up on the bushes. This is what he has to say about some of the other fruits he is growing:

"The one crop that rejoices in the hot winds is the Beta grape; the hotter it blows the faster they grow and the tigher they cling to the trellis. Fool the 'hoppers too—they can't find the bunches among the plant growth. Here's one crop that won't be overdone—too much work, but it sure sells.

Another crop we rejoice in is the bushy cherry plum. The bigger the crop the less the loss from winds. This ought to be called the can filler.

The Dolgo apple ought to make a hit in a country with 366 windy days a year. It hasn't bore for us yet, but the fruit jars are empty waiting for this season's harvest."

Mr. Thomas W. Hobart of Sioux Falls, has been ill the greater part of the winter. He is one of the men you hear about who never gives up. He has done some good work for the Society, even though he was not feeling well. We hope he will soon be able to be in the harness again.

Our old friend Claude A. Barr writes us that he will send us some articles for the magazine. Everyone enjoys his articles.

EXTRACTS FROM THE DIARY OF A TRAVELING MAN

W. A. Simmons, Sioux Falls

January 21

Twenty-eight below this morning by the official thermometer. Other temperatures ranging from thirty to forty below were reported by various citizens, depending on the character of the man and his thermometer.

Shall purchase some more ill-natured alcohol for the car, but unfortunately the non-freeze preparations now on the market for the human radiator seem to be entirely ineffective.

Shall go forth resembling a wolf in a sheep-lined coat. Wish some benevolent genius would invent sheep-lined socks for this kind of weather.

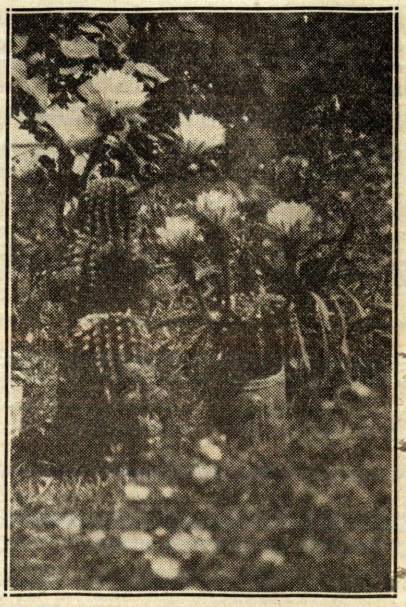
January 26

In a letter, Mr. John Robertson gives the following as his yields for the 1929 season: red raspberries, 5580 pints; black raspberries, 41 pints; strawberries, 12 quarts; currants, 500 quarts; gooseberries, 400 quarts; cherries, 100 quarts; grapes, 1000 pounds; pears, 25 bushels; apples, 6000 bushels. This is certainly a fine showing on the twenty acres Mr. Robertson uses. What wealth South Dakota would produce if all of its acreage were as effectively used.

Here are a few things to be done in March. If an annual member, and you have not already done so, send in your renewal to our secretary. If you have already attended to this, or if you are a life member, interest some of your neighbors in the society and get us some new members. Remember you will be earning a regal lily bulb, every time you do this.

Carefully gather up all empty bottles, tin cans, etc., that your neighbors may have heaved over the fence during the winter. It is considered unethical to return these during the short hours of daylight. Most authorities recommend doing so only after dark.

Lastly, don't be in a hurry to remove the mulch from your ears while doing outside work this month. Frost injury to your ears might interfere with your hearing when your neighbor says "yes" when you ask him to join the society.



Cactus Grown by Mr. L. Gump, Kranzburg.

January 28

One of the yearly visits to which I always look forward with keenest pleasure is to the parsonage at Howard where Father Stecher always gives me a cordial welcome.

Possessed of a great fund of information, garnered from many years of experience, he combines this with a most lovable personality and is a most charming host. Sometimes he speaks of his seventy-seven years of life and infers that he is getting old, but though the passing years may leave their scars on the body, they have not and cannot age the mind and heart, both of which will remain young as long as he abides with us.

Readers will remember his very interesting article on the Iris, published in an early number of our magazine. He has really done some notable plant breeding work with this, perhaps his favorite flower. But his interest in other flowers, such as the rose, the cactus and many

others, is also keen and he is very successful with all of them. He has a large bay window in the parsonage filled with many rare and beautiful house plants. He has five varieties of cactus in the window, including the rare and beautiful rat-tailed cactus.

One variety now in bloom has a most bizarre green and yellow, black spotted, large single blossom. One must admire this from a distance however as the odor is most unpleasant. Even an Englishman would consider meat that smelled like that altogether too "high."

Father Stecher is going to give us some more articles for our magazine this year, and I am sure we shall all greatly enjoy them.

The January 15th number of the Market Grower's Journal contains a very interesting article entitled "Plant Containers and Nitrogen" based on the experiments of Dr. Knott and Prof. C. D. Jeffries of the Pennsylvania Experiment Station.

The authors state that "Two important materials which the plant obtains from the soil for use in its growth are water and nitrate nitrogen."

If water becomes exhausted the plant will wilt while if nitrogen is lacking a sickly yellowish growth results.

"Whenever any carbon-containing material such as cellulose is in contact with soil it is attacked by those soil micro-organisms which have the ability of using this sort of material. Its decomposition results and we say it has rotted.

As these organisms multiply they use nitrogen in forming new body tissue. Thus the plant and the micro-organisms are competing with each other for the available nitrogen in the soil. The organisms seem better able to obtain this nitrogen than are the roots of the plant. Possibly they are closer to the supply.

The more carbon containing material that is placed in the soil and the better the conditions favoring the activity of the organisms, the greater will be the injury to any plants which are trying to obtain their nitrogen from the same volume of soil."

Containers made of paper, pulp, or peat, are subject to rapid attack and those made of wood, to a somewhat less rapid attack. "New clay pots absorb salts from the soil. Surprising quantities of nitrates are taken into the clay in this way."

This explains why florists and wise growers always soak new clay pots, before using them, till they reach a saturation point, after which their rate of absorption of nitrates will be too slow to limit the growth of plants.

The authors recommend soaking peat pots in lime water before using, to overcome their acid reaction.

The authors state that at the first signs of nitrogen deficiency the plant should be watered with a solution made by dissolving one ounce of nitrate of soda in a gallon of water.

Usually one watering will suffice but if the plant does not recover its dark green leaf color quickly, another watering in about a week's time should be given it. By using this material to correct nitrogen deficiency, containers of most any composition can be used with equal success.

The radio is probably responsible for bringing to attention many old and long forgotten songs.

But the words of such songs are often difficult to catch, as static both in the receiving set and in the singer often prevent their being understood. For these reasons, many publications are regularly receiving requests for the words of some of these old favorites, this applying to flower journals as well as those in other lines.

Madison Cooper's "Flower Grower" seems to get many such requests, and publishes the words of many of these old time favorites. Was not surprised therefore at receiving a request for the words of "My Bonnie Lies Over the Ocean."

(Continued on Page Fifteen)

NO NEED FOR A BARREN SCHOOL YARD OR FARMSTEAD

Frank D. Kriebs, Secretary of Agriculture

The Department of Agriculture has made arrangements with the South Dakota Nurseryman's Association whereby they will furnish any school or individual forest tree seedlings at cost, under the following agreement:

"I agree to plant these trees in well-prepared ground and will give them clean cultivation the first two years."

Trees are sold in the assortment as listed below and only one collection of trees is made to a school or individual each year. All trees are to be South Dakota grown and instructions as to the planting and care of them will accompany each shipment.

To any SCHOOL in South Dakota, they will furnish 40 Chinese Elms that are two to three feet high for $5.00 prepaid.

To any INDIVIDUAL, they will sell 100 American White Elms, 100 Green Ash, 50 Caragana, 25 Chinese Elms and 25 Russian Olives. These trees will be one-year seedlings, from six to twelve inches in height. The three hundred assorted trees will be shipped prepaid for $3.25.

In order to make this unusually low price, assortments will not be broken, nor will the SCHOOL trees be shipped to INDIVIDUALS. The variety of trees furnished are the five leading trees which are best suited for growth in South Dakota.

The American Elm is probably the most stately and spreading tree that can be grown in our state. The tough wood of its sturdy branches will withstand our most severe storms. The beautiful dark green leaves may be whipped for days in the wind, but they do not blow from the tree, and bruise very little.

Just plant this tree any place in the shelter belt, lawn or street and it will give you service, beauty and protection.

The Chinese Elm is very similar to its sister—the American Elm. The branches are more slender and drooping and the leaves smaller. It is much faster growing than the American Elm and as rapid as the cottonwood even under more adverse conditions. This tree will win your admiration in a very short time.

The ash is the old native "stand by." It has won its popularity through its time-tested merits. It is rather slow in growth but produces the most excellent wood. This tree has furnished protection from storms, fuel for the home and repair wood for machinery for more homesteaders than any other tree in South Dakota.

The Russian Olive is a low, dense growing tree that will withstand as much abuse and drought as any tree we have. Plant it on the outside of the windbreak and it will bear the brunt of the storms or anything that happens its way. Late in the fall it will still greet you with its beautiful silvery leaves and seed.

The Caragana is a low growing tree that will withstand our most severe cold, dry climate—a very effective windbreak tree. The fine leaves and clusters of yellow blossoms in the springtime make this tree unusually beautiful. It is a rugged little tree that will serve you faithfully at all times.

We have made the road easy for everyone to plant trees this spring. The time (April or May) for planting is fast approaching, and orders should be placed as early as possible, so that they can be handled properly.

Our Governor issues a Proclamation designating Arbor Day each year. It is interesting to note that it is just fifty-eight years since the first Arbor Day. It was set aside by the Nebraska State Board of Agriculture on April 10, 1872.

This first Arbor Day was so successful that the whole country was stirred by the idea, and no wonder. For the observance of Arbor Day holds quite as rich possibilities of spiritual growth as of merely physical development.

It is a symbol of progress. It is the only one of our American holidays which turns its face toward the future rather than toward the past. But it holds for the youth of our land a lesson far more needed than that of progress—the lesson of economy and unselfish forethought.

The Department of Agriculture has prepared a special tree booklet that is yours for the asking. The variety and quality of the trees is the best, the price within the reach of all. Why not get busy?

You can help build the state by helping yourself. Send your order with check to the South Dakota Nurserymen's Association, H. N. Dybvig, Colton, South Dakota.

MAKE YOUR HOME BEAUTIFUL

Mrs. Earl Dickerson, Irene

A picture of making your home beautiful is a real possibility for nature and love working hand in hand can create it. And it ought not to be a difficult matter for any one to have a garden, provided they have the desire and determination.

No matter what kind of soil you may have to deal with, something will grow in it, and if you cannot produce large quantities of flowers, perhaps you can produce one or two perfect blooms, for "flowers are the sweetest things God ever made and forgot to put a soul into.' '

Too often in the hurry and worry of our busy lives, our back yards become a cluttered space of bare ground or weeds, a favorite place to drop discarded tools, tin cans or the worn out shoes of the whole family.

Every home, if in town or in the country, presents some picture to the passerby, and when we see so many bare yards, without a sign of a shrub or flower that could so easily be changed by the planting of trees, shrubs and flowers, a few dollars worth of correct nursery stock, planted in the proper place will accomplish wonders. A garden is not an expense, it is the love and patience that you have to work with your little seeds and plants.

Much has been written in the way of advice on planting your yard and garden, but every garden is a new and distinct problem, some planning is necessary and is one of the greatest pleasures in gardening, there is no bigger error than the common error of assuming that artistic effects can be secured by planting on the "hit or miss' plan. Even the most beautiful plants fail to return the full measure of their glory if planted without due reference to their nature, planting without the knowledge of the habits of each plant is almost certain to result in failure. We must realize in this as every other pursuit, that we learn by experience, but we need no other school than our own back yards and our text-books are flower catalogues.

Winter evenings spent in studying flower catalogues is time well spent, the pocketbook may dictate the choice of many, but a five-cent package of Petunia seed scattered over a barren space, and kept free of weeds will give you georgeous bloom from earliest spring till frost.

To make your garden more liveable you can have your garden furniture, a rustic seat, a bird bath, a summer house or a pool. They add much to the charm of your out-door living room, these can be bought ready made or you can make them yourself, and what a pleasure to see them develop under your own saw and hammer, a bird bath placed in some attractive spot will gather all your bird friends and your garden will be filled with the music of their song through the long summer days.

Then if you can, by all means have your water garden, there is always something fascinating about water that you find in no other object. Your pool can be anything from a sunken half barrel to any shape of concrete pool, and the culture of water lilies is so simple that it might almost be said that "they just grow themselves." Their modest requirements are sun, water and rich soil. Place a few goldfish in your pool and you have a spot to which your feet will always stray.

To me my garden, with its flowers, birds and fishes, is a living, breathing being, and every winter I plan and every spring the battle is on to make my garden just a little more beautiful than the one mother nature hid away.

STRAWBERRY CULTURE IN WESTERN SOUTH DAKOTA

E. A. Gates, Rapid City

I will take up the different phases in their natural sequence and will treat them from a commercial standpoint as we grow berries for the market and have the largest patch of strawberries in our vicinity. But the methods which I discuss may be applied to the home garden as well as the retail garden. We have been growing berries for the past eight years at Rapid City and I will point out the best methods for culture that we have found during that time.

The first thing to do in contemplating growing a patch of strawberries, is the preparation of the ground. You must have a firm soil, if you do not the ground will not pack firmly against the roots and they will dry out easily and the soil will settle away from the plant leaving the crown exposed. So I would advise early fall plowing or if late plowed, go in at once and pack down with a disk. If you have clean ground that is not covered with a lot of trash and if for any reason you did not get it fall plowed I would not advise that you plow at all in the spring, but cover lightly with well rotted manure, disk thoroughly and harrow. The ground should be left smooth, free from all lumps and ridges. If necessary after disking and harrowing we use a heavy plank float to take off the ridges and grind up the lumps and then we harrow again across from the way that we expect to plant the rows. The ground must be left smooth or we will run into difficulties when irrigating.

If you have the ground thoroughly prepared to your satisfaction, then you can mark out the rows ready to plant. But don't plant until you feel the ground is thoroughly prepared. It will save many difficulties later on and a poor stand of plants. We plant the rows far enough apart for a one-horse cultivator and have found three and one-half feet about right for picking, cultivating, etc. We use a hand drawn marker that can be adjusted to any width row desired.

I use a short handled trowel in planting and by having a boy pass the plants to me, plant from 500 to 1000 an hour, the rate of planting depending upon the condition of the soil. Before planting we usually prepare enough plants to fill the particular field we have prepared. By preparing plants I mean digging and trimming. We find that a potato fork is about the handiest article for digging as the roots are not cut. The man who is gathering plants picks them up with his right hand placing them in his left with the crowns together and the roots all one way, using only young plants of course. When he has about all he can hold in his hand conveniently he picks up a pair of scissors and clips the tips of the roots off and the old leaves, runners and most of the new leaves from the crown. He then places the plants in a covered pail or basket, roots down. If not ready to plant immediately we heal-in or pack in moist moss with crowns exposed. In planting the plants are placed in a pail, roots down, until the pail is full. The bucket is then filled with water, the water drained off and a piece of wet burlap placed over the top on sunshiny or windy days, to prevent drying out. We should remember that the strawberry plant is a type of the evergreen and the roots should not be exposed or allowed to become dry.

In earlier years we watered by hand immediately after planting but have discontinued this practice. When the ground becomes too dry we run a small ditch along the row and irrigate. This is very seldom necessary however, where the ground is properly prepared and plants are firmed-in. In planting, the planter steps with his heel close to plant firming soil to roots.

We keep strawberries cultivated and free from all weeds. This necessitates horse cultivation, hoeing and hand-weeding. This is the only way you can grow strawberries successfully. We do considerable horse cultivating the first part of the year after planting and keep the runners in rows. The latter part of the season when soil usually becomes dry, the weeds do not bother so much and runners are spreading rapidly; we furrow between rows and irrigate whenever necessary. We try to

keep the runners out of the ditch by going through with a ditcher occassionally.

The second year we do not cultivate until after the picking season but go through and pull out or hoe out all weeds just before picking time. After the picking season is over we go through with a one-horse cultivator and tear out most of the row with the exception of a narrow strip and from this we get our row of new plants for the following year and handle as we did the first year. The above method is used with the spring bearing varieties. The everbearing varieties are handled about the same way, except we tear out what is necessary in the fall. As the everbearing plants do not spread as rapidly as the June bearing varieties, less tearing out is necessary.

We usually mulch the strawberry patch the first winter after planting, only or when plants are scattering. After the first year we do not as a rule mulch, as they are thick enough for self-protection from the thawing and freezing of ground in the winter time. We get best results by mulching early, by the latter part of November whether the ground is frozen or not. I have had plants freeze out in December, when we had zero weather with high winds. The best mulch I have found is old strawy manure. With this mulch you fertilize the ground at the same time giving the plants winter protection. We spread this thinly and in the spring pull this partially off between the rows. Straw has not proven satisfactory with us. The wind usually blows straw off and it is either full of weed seed or grain which makes considerable more work the next year. Corn fodder makes a good mulch but it is difficult to handle and has to be removed the following spring. We have used alfalfa straw quite successfully or chopped alfalfa straw where the alfalfa has been run through threshing machine for seed.

A word about fertilizing. We find that a certain amount of fertilizer is a good thing for strawberries. We get large berries and plants run freely where ground is fertile. On the other hand on poor ground or on ground that has not been fertilized we get firmer berries and plenty of them but they tend to become small and plants do not run freely, so I would advise a fairly rich soil but not too rich as you will get soft berries that would not be suitable for market purposes.

In irrigation, we irrigate thoroughly just before the berries commence to ripen and about once a week after that, unless there is plenty of rainfall, or until the plants are through bearing in the early summer. We find that there is one thing that a person has to be very careful of while irrigating when plants are bearing and that is not to flood too much cold water over the berries themselves on a hot day. It will sour a large percentage of them. We get best results by irrigating in the evening or at night.

SUPERLATIVE DEGREE PLANTS

Prof. Alfred C. Hottes of Better Homes and Gardens, Des Moines, Iowa, gave a very interesting talk at the convention which he called "Superlative Degree Plants." He named many interesting plants which garden club members will wish to grow.

The first one mentioned was the John Ruskin Tulip which Mr. Hottes thought was the best tulip because of its delicate tint.

He considers the Winter Aconite, Eranthis Hyemalis, one of the best of early flowers. It comes out very early in the spring, may freeze, but will open again.

For small trees, he mentioned the Japanese Crab, wonderful because of its purplish red bloom, and also Bechtel's Crab.

One of the dogwoods, Cornus Kousa was given honorary mention as a wonderful shrub.

Among the best early flowering shrubs is the golden bell, Forsythia Spectabalis. The Glossy Buck-thorn is a later blooming shrub and has bloom and fruit all summer. It is especially good because it is free from insects and diseases. It is rather hard to transplant, however.

There were two honeysuckles mentioned which Prof. Hottes considered unusually good, Lonicera korolkowi which has a blue leaf; and Lonicera Podocarpa maackii.

The Best Annuals

The Petunia was named as the best annual. The simpler types were considered the best. The Cobaea or cup and saucer vine Mr. Hottes named as the best annual vine. The silver lace vine, Polygonum auberti is very fine but may freeze down in this climate. Another perennial vine is Euonymus radicans vegetus. The Verbena, Miss Ellen Wilmot, came in for honorary recognition and blue fescue, festuca glauca was named as a wonderful edging plant.

The Campanula carpatica is another wonderful low growing plant especially good for rock gardens.

Use Christmas Trees

Prof. Hottes does not believe in the Christmas Tree campaigns put on spasmodically to prevent the use of spruce and other evergreens at Christmas time. He remarked, "To what better use could a tree be made than to gladden our hearts during this wonderful time of the year?"

Spruce and balsam can be easily replanted and grown by the millions. Many nurserymen and farmers are now growing them for Christmas tree use. Whether they are cut down for Christmas trees or the same species are used for making paper for our Sunday comic sheet is immaterial. In fact the Christmas tree would seem the better usage. There are millions of acres of land in this country suitable for nothing but growing Christmas trees.—Wisconsin Horticulture.

A MILLION DOLLAR'S WORTH OF TREES SAVED IN ARKANSAS

Three of the outstanding products of the program in horticulture for the extension service of the University of Arkansas during the last five years are the control of the San Jose scale in orchards of Arkansas, home beautification, and the training of local leaders in method demonstration schools. The first of these, the control of San Jose scale, has been accomplished. The work of home beautification has influenced the entire state and has attracted nation-wide attention, but it is only well started. The training of local leaders in method demonstration schools is one of the newer projects of the horticultural department and the work is going forward with an interest that promises a state-wide success for this enterprise.

In 1920 and 1921 many large orchards were wiped out by the San Jose scale, which was rapidly spreading through the apple and peach belts of Arkansas. Concentrated lime sulphur, then generally recommended, was found inadequate to control the disease where orchards had become incrusted with it, even when two or three applications were used.

Experiments in the use of lubricating oil emulsion were made by the United States entomological laboratories at Bentonville, Ark., and the treatment proved a satisfactory control for the scale and did not result in damage to the trees. County agents over the entire state established demonstrations in the use of the oil emulsion in both apple and peach orchards. During the four years, 1925-1928 inclusive, 353,704 trees in 1,477 demonstrations were treated with the oil emulsion by county agents.

By this time the use of this method had become general through the scale infested areas and its control was definitely established. Both home and commercial orchardists now have adopted this practice over the entire state, and scale injury has been reduced to a minimum.

Save $1,042,628

Estimates from the department of rural economics and sociology of

(Continued on page 15)

GROWING ROSES IN THE BLACK HILLS

L. S. Hamm, Rapid City

In mentioning roses I am at once moved to quote from a prominent rose manual: "Roses. The very word is fragrant. It is a caress, a magic incantation. Exquisite memories lie in its gift. This five-petaled word, it is safe to say, enshrines more mental pictures of pure and enduring beauty than any other in the garden of speech. Life admits no word to more tender intimacies. As children we dance to its nod down sunny aisles of laughter; as young men and maidens we seal with it the betrothal kiss; and at our journey's end we call upon its living fragile loveliness to breathe denial of death itself. Since history was first written the rose has been associated with the most important and vital, as well as the tenderest, events in the life of man. For centuries it has been fully recognized as the Queen of Flowers, honored alike by poet and by king."

In taking up the matter of handling roses I really expect to have difficulty in convincing some skeptics that roses can be successfully grown and made to blossom in this region, as many seem to think that the Mason and Dixon line is the northern border of the rose growing district. Now if any of you are included in this list I will go you one better and speak only of the ever-blooming hybrid teas, and the climbers, as you know if we can successfully grow these, year after year, that the hardy rugosas and other June bloomers will live a life of ease in our 30 below zero weather (sometimes). Of course, do not understand that all monthly blooming roses, and all climbers will thrive here, and it would be folly to buy all that are listed in nursery catalogs, as we learned to our sorrow several years ago. We recommend spring planting in this latitude because of liability of the ground to crack and heave, also advise own root roses when they can be obtained, as our experience has proven .their superiority over grafted stock in this way: with the grafted rose the top is liable to winter kill down very close to the knuckle or union and thus may sucker from the root and grow wild, as we say, while with the own root rose the shoot will always be the same as the parent plant.

Monthly blooming roses to do their best, and give us a succession of blooms the entire season must have the best of care. They should be watered and cultivated not just occasionally but often, at least once a week during the driest part of the season. Give them twice as much care as you think they really deserve, and they will respond with a wonderful array of bloom throughout the season. When fall comes mound them up with earth, trim off the tops and tuck them in for their long winter's sleep.

When spring comes along and the little bushes begin to awaken, we remove the dirt and cover the little shoots, as owing to their tender and feminine disposition, they resent the feverish advances of old Sol, and we must allow them to become accustomed by degrees to the temperamental mood of spring. We use a covering of burlap or some other material leaving two sides open so that air may circulate through. In a week or so we remove the covering entirely, during a cool, cloudy or rainy period, thus the tender shoots become gradually seasoned and acclimated. These roses should begin to bloom about June first and bloom at regular intervals until cut down by frost. There is very little danger of using too much fertilizer on roses especially well-rotted manure. We also use a commercial fertilizer, sprinkling a handful around each bush every few .weeks, of course, keeping it away from foliage. In cutting rose blossoms, cut back very near the main stalk leaving only two or three eyes to develop new shoots as then the growth is forced into the new shoots and blossoms. Climbers may be cared for the same as everblooming roses except they may be covered with some material other than soil. We use tar paper or something of that nature.

In conclusion will say that I am convinced that the one most important phase of rose culture in our climate is the care through the winter and especially in the spring, as more roses are lost through March and April than during the rest of the year.

CHINESE ELM

H. N. Dybvig, Colton

Chinese Elm in American Horticulture

Among the many valuable contributions of Northern China to American Horticulture, the Chinese Elm (Ulmus pumila) stands as one likely to prove of increasing value to certain sections of the United States. First introduced in 1908 by Frank N. Meyer, agriculture explorer, from near Peking, Chihli, China, the tree is established in a number of places in this country, and seeds and plants are offered for sale by several nurseries in the South and West.

It is a rapid grower, with slender, almost wiry branches. The leaves are elliptical and smaller than those of the American Elm. If allowed to assume its natural habit, the Chinese elm develops numerous branches along its trunk, making a rather dense growth from near the base and resembling in some instances large shrubs. It is one of the first trees to leaf out in the spring and the last to shed its leaves in the fall. Throughout the long season the leaves remain a beautiful green and are remarkably free from the usual plant diseases and insect injuries so common in many of the other elms.

Tree Is Very Hardy

It is very hardy and has proved valuable under a greater variety of climatic and soil conditions than any tree yet introduced. Very favorable reports have been received from practically every section of the country. It has proved winter hardy in most trials in the Dakotas, Minnesota, New York, Montana, and other northern states. Its resistance to drought, alkali, and extremes of temperature render it an especially valuable tree in the Great Plains region where desirable shade trees are few, in the semi-arid south and southwest, and in fact in almost any portion of the continental United States.

That this elm is a very rapid grower is shown by the following statement from a planter at Bridgeport, Nebraska: Trees planted May 1, 1918, were reported upon as follows on April 7th, 1922: "Trees when received were not over 3 feet high and about the size of a lead pencil. On November 1, 1921, by actual measurements, they were 16 to 19 inches in circumference and from 15 to 25 feet high."

A report from the Fort Hays experiment station at Hays, Kansas, commenting upon a tree received and planted in 1913, gives the following information: "Tree is now 46 feet high and has a trunk 21 inches in diameter." In trials in the eastern United States from New York to Florida it has made a good growth and produced good trees, although in this region they have not made as rapid growth as in the middle west or Great Plains area. —By C. C. Thomas

I planted my first Chinese elm in the spring of 1925, in fact, I traded for some surplus stock that I had at that time, with a firm in Washington. I was to get 5-6 foot trees and I ordered them boxed and shipped by freight. About April 15th, a small bale, tagged 100 Ulmus Pumil 5-6 foot, arrived from Washington. Upon inspection, I found that they were but 4-5 foot trees, unbranched, or what we call whips. I was very disappointed in them, but being very busy, I had one of the boys put them on a shelf in our packing shed. I forgot about them until the latter part of May and at that time I had some of the boys plant them. In spite of the extreme drought that summer, they made a most remarkable growth. In four months after planting some of them were nice 6-8 foot trees.

I do not believe that there is any other variety of tree that has been more generally appreciated by the public than the Chinese Elm. Many of our customers are so well pleased with them that they write or tell us of the wonderful growth that their trees have made. Here is an extract taken from a letter by Mr. W. G. Adams, Imperial, Nebraska.

"Last spring I attempted to get 5-6 foot trees to plant on our fair

ground. However, you were able to furnish only 2-3 foot ones. 100 were planted in holes dug for the larger trees, which was just right. The ground was plowed, the holes dug 2-2 1-2 feet deep, filled with water several days before the trees came. The ground was disced once and the trees were hoed close in just once. They were trimmed to within 5 or 6 inches of the top and all sprouts kept off below that, that came on later. They were placed low in the holes and a swale of several inches deep was left at each tree. The growth is unbelieveable. There is a 5 to 6-foot growth on many of them. One measured 7 feet strong yesterday. They have a wonderful spread of dark green foliage and did not show a yellow leaf during any of the dry weather this summer, although not a drop of water was put on them after planting. How is that?"

There is an ever-increasing demand for the Chinese elm and the biggest trouble is to grow enough to supply the demand. Very few trees in the United States are old enough to supply seed for the growers and the seed must be shipped from China. It is hard to keep during shipment and much of the time the seed does not germinate very good after its trip across the ocean. Some propagation is done by cuttings and by root cuttings but that is not very successful or extensively used.

More trees should be planted over our entire state and I think that we would all do well to plant as many trees as possible each year. I do not believe that any one would be sorry, if, in planting their trees, they would use Chinese Elm.

GARDEN NOTES

F. X. Wallner, Sioux Falls

Cato writing more than 2000 years ago, may have known all about vitamines in vegetables. He said, "If you wish to dine well in company you should eat five leaves of raw cabbage steeped in vinegar before sitting down to table." But now its sauerkraut juice, a drink for the millionaire class, and its not uncommon to find this beverage on the menu cards of the finest hotels.

Its time to get your hotbeds in at once, and be sure to fill your flats with more than two inches of soil, three inches is better, use about one inch of well-rotted manure in the bottom of the flats; two inch flats dry out too quickly.

"The Female of the Species is more deadly than the Male" also more dumb; today I put two big crisp and tender cabbages in the chicken house, the hens walked around and around them, hardly touching them, but the wise old rooster tackled them and his call brought the hens so they were not long in finishing the two heads.

Think of the hungry mob of students at Brookings ordering for breakfast 750 fig bars and 250 cups of coffee almost the same amount of "tombstones and jamaika" or "stones and soakers," then filing out satisfied, all sucking a coffin nail. Ye gods. What are our farm boys coming to, how long will their digestive machinery hold out?

One Colorado seed firm claims to have picked 60,000 bushels of zinnia blooms for seed. Seems as if that would be enough for the whole country, but the zinnia has been improved wonderfully of late and it takes millions of packets of seed to supply the demand.

In olden days the wool of two sheep a year were used to dress a woman, but now "two silkworms" seem to be plenty on any Sunday afternoon.

A dozen pea canning factories within one hundred miles of Watertown, Wisconsin, keeps the farmers busy during the month of July, hauling the vines in immense racks with truck, returning with the fodder for the milk cows, later comes the beans, corn and cabbage; diversified farming at its best.

What makes the little white mice dance at the carnivals, and why do they fail to dance when you get them home? Could the fellow make the field mice dance the same way?

The spring wheat farmers are supposed to reduce their plantings 20 per cent. The winter wheat farmers are supposed to plow up 20 per cent because the wheat wintered over well, also Chairman Legge of the Farm Board suggests that farmers put the wood lot back on every American farm as another means to reduce crop acreage. He should see the dead wood lots of the Northwest the past few years, that the farmers do not seem to be able to work into stove wood. The low places, creek and river banks, draws in pastures should be planted to trees.

January and February are the months to study seed catalogs, we have about forty, five from Philadelphia. These Philadelphia seed firms are the oldest in the country. "Landreths 146 years in one Family," eighteen Landreth men active in the seed business since 1784. Manle, Burpee, Simon & Dreer, all over fifty years in Philadelphia and are growers of good seed.

The Potato Champion of the world, L. G. Shutte, Monte Vista, Colorado, was guest of honor at the Iowa State vegetable meeting New Years Day. The Potato Association of America also met jointly with the vegetable growers. Many growers of Iowa had records of six and seven hundred bushels. But this champion had 1145 bushels an acre, about one thousand more than the average for South Dakota.

A friend has just offered me a division of his big red ten dollar water-lily for my pool. We love the quiet of this spot when all tired out.

Ohio Experiment Station gives results in a bulletin on tomatoes, and the North Dakota varieties; Viking and Fargo showed up very well and somewhat ahead of the better Earlianas. Professor Yeager is surely getting out some wonderful vegetables.

Brisbane says: "At best all farming should be classed as a form of philanthropy, not as a business."

The first thing to go out into the ground in March, when the highest ground is fit to work, is the sprouted onions, for green onions. A little later radishes, onions, spinach and peas, but be careful of the tender vegetables.

EXTRACTS FROM THE DAIRY OF A TRAVELING MAN

(Continued from page 6)

As I was never much of a song bird, this request found me entirely unprepared, and was about to write all the words to that song that still stuck in my memory which were:

"My Barney lies over the ocean
The same as he lied to me,"

when fortunately I thought to consult my daughter about it, and she has furnished the complete words which I take pleasure in passing along to this correspondent, and any others that may be interested:

"My bonnie leaned over the gas tank
The height of its contents to see
I lighted a match to assist her——
Oh, bring back my bonnie to me."

A MILLION DOLLARS WORTH OF TREES SAVED IN ARKANSAS

(Continued from page 11)

the University of Arkansas, college of agriculture, and from the department of entomology place an estimate of $1,042,628 on the trees saved by the work of county agents in San Jose scale control, and also note that there was a great saving to fruit growers in the use of the effective spray at a much cheaper figure than was paid for the treatment which was not effective.—American Nurseryman.

The American Peony Society has a standing offer of $1000 cash for the development of a full yellow double peony. Purchasers are often disappointed in buying from some salesman a variety of peony which is claimed to be yellow.—Wisconsin Horticulture.

PLANT PREMIUMS FOR 1930

No. 1. Anoka Apple, very early bearing.
No. 2. Ivan Crab, large fruited crab.
No. 3. Olga Crab, large fruited crab.
No. 4. Sugar Crabapple, very fine for sauce.
No. 5. Winnipeg Plum, Manitoba hybrid, very hardy.
No. 6. Perennial Sweet Peas, 2 tubers.
No. 7. Gladiolus, 16 bulbs.
No. 8. Peony, red, one root.
No. 9. Peony, pink, one root.
No. 10. Peony, white, one root.
No. 11. Lilium Elegans, red, three bulbs.
No. 12. Iris, three varieties.
No. 13. Babys Breath, two roots.
No. 14. Delphinium, Gold Medal, two roots.
No. 15. Sweet William Everbearing, two roots.
No. 16. Rose, Crimson Baby Rambler, one plant.
No. 17. Rose, Excelsa-Climber, one plant.
No. 18. Spruce, Black Hills, 6-12 inches, well rooted.
No. 19. Caragana, 6-12 inches, 10 plants.
No. 20. Buckthorn, 6-12 inches, 10 plants.
No. 21. Spirea Van Houettei, 18 inches, one plant.
No. 22. Englemans Ivy, well rooted, one plant.
No. 23. Oka Cherry, one plant.
No. 24. Chinese Elm, 18-24 inches, two trees.
No. 25. Mendel Pear, large fruit, high quality, one tree.
No. 26. Zumbra Cherry, bears early, large, fine cooking, one tree.
No. 27. Tom Thumb Cherry, bears young, very prolific, dwarf, one tree.
No. 28. Dolgo Crab, our finest jelly crab, one tree.
No. 29. Haralson Apple, large red, keeps all winter, one tree.
No. 30. Harbin Pear, small, quality fair, one tree.
No. 31. Shasta Daisy, one plant.
No. 32. Cherry Currant, large red currant, two plants.
No. 33. White Phlox, perenial, one plant.
No. 34. Latham Raspberry, 3 plants.
No. 35. Ohta Raspberry, 3 plants.
No. 36. Alaska Daisy, 2 plants.

Tear off coupon and mail with $1.00 to R. W. Vance, Sec., Pierre, So. Dak.

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